Gravatt, Dan

From: Asher, Audrey
Sent: Tuesday, July 02, 2013 1:52 PM
To: Tapia, Cecilia; Hammerschmidt, Ron
Cc: Gravatt, Dan; Singletary, DeAndre
Subject: RE: Westlake Landfill Statement of Work and IA with USGS
Attachments: FW: Westlake Landfill Statement of Work and IA with USGS

I have reviewed these documents. They are releasable.

Gravatt, Dan

From: Tapia, Cecilia
Sent: Tuesday, July 02, 2013 10:47 AM
To: Hammerschmidt, Ron; Asher, Audrey
Cc: Gravatt, Dan; Singletary, DeAndre
Subject: FW: Westlake Landfill Statement of Work and IA with USGS
Attachments: westlake landfill statement of work scanned for Cecilia-2013.pdf; westlake landfill IA-scanned for Cecilia-2013.pdf

On June 26 MCE requested a copy of the USGS IA and Statement of Work. CNSL can you review for releaseability and let Ron know if it's OK to forward.

Cecilia Tapia
Director, Superfund Division
U.S. Environmental Protection Agency - Region 7
11201 Renner Blvd.
Lenexa, KS 66219

Phone: (913)551-7733 Cell: (913)449-4171
Email: tapia.cecilia@epa.gov

From: Rabenau, Marie
Sent: Tuesday, July 02, 2013 10:40 AM
To: Tapia, Cecilia
Subject: Westlake Landfill Statement of Work

STATEMENT OF WORK

Technical Support for Groundwater Investigations at the
West Lake Landfill OU1Superfund Site

1. BACKGROUND INFORMATION

The West Lake Landfill OU1 Site is on a parcel of approximately 200 acres located in the northwestern portion of the St. Louis metropolitan area. It is situated approximately one mile north of the intersection of Interstate 70 and Interstate 270 within the limits of the city of Bridgeton in northwestern St. Louis County. The Missouri River lies about 1.5 miles to the north and west of the Site.

The Site consists of the Bridgeton Sanitary Landfill (Former Active Sanitary Landfill) and several inactive areas with sanitary and demolition fill that have been closed. Land use at the site and the surrounding areas in Earth City is industrial.

Other facilities which are not subject to this response action are located on the 200-acre parcel including concrete and asphalt batch plants, a solid waste transfer station, and an automobile repair shop.

The Site was used agriculturally until a limestone quarrying and crushing operation began in 1939. The quarrying operation continued until 1988 and resulted in two quarry pits. Beginning in the early 1950s, portions of the quarried areas and adjacent areas were used for landfilling municipal solid waste (MSW), industrial solid wastes, and construction/demolition debris. These operations were not subject to state permitting because they occurred prior to the formation of the Missouri Department of Natural Resources (MDNR) in 1974. Two landfill areas were radiologically contaminated in 1973 when they received soil mixed with leached barium sulfate residues.

The barium sulfate residues, containing traces of uranium, thorium, and their long-lived daughter products, were some of the uranium ore processing residues initially stored by the Atomic Energy Commission (AEC) on a 21.7-acre tract of land in a then undeveloped area of north St. Louis County, now known as the St. Louis Airport Site (SLAPS), which is part of the St. Louis Formerly Utilized Sites Remedial Action Program managed by the U.S. Army Corps of Engineers.

Reportedly, 8,700 tons of leached barium sulfate residues were mixed with approximately 39,000 tons of soil and then transported to the Site. According to the landfill operator, the soil was used as cover for municipal refuse in routine landfill operations.

The geology of the landfill area consists of Paleozoic-age sedimentary rocks overlying Pre-Cambrian-age igneous and metamorphic rocks. The Paleozoic bedrock is overlain by unconsolidated alluvial and loess deposits of recent (Holocene) age. Alluvial deposits of

varying thickness are present beneath Areas 1 and 2. The landfill debris varies in thickness from 5 to 56 feet in Areas 1 and 2, with an average thickness of approximately 30 feet in Area 2. The underlying alluvium increases in thickness from east to west beneath Area 1. The alluvial thickness beneath the southeastern portion of Area 1 is less than 5 feet (bottom elevation of 420 ft/amsl) while the thickness along the northwestern edge of Area 1 is approximately 80 feet (bottom elevation of 370 ft/amsl). The thickness of the alluvial deposits beneath Area 2 is fairly uniform at approximately 100 feet (bottom elevations of 335 ft/amsl).

During the RI investigations, groundwater was generally encountered in the underlying alluvium near or immediately below the base of the landfill debris. Isolated bodies of perched water were encountered in 2 of the 24 soil borings drilled in Areas 1 and 6 of the 40 borings drilled in Area 2 as part of the RI field investigations. The perched water generally occurs in small isolated units at depths varying from 5 to 30 feet below ground surface. Monthly groundwater levels measured in various landfill wells indicate that only a very small amount of relief (less than a foot) exists in the natural alluvial water table surface. The regional direction of groundwater flow is northerly within the Missouri River alluvial valley, parallel or sub-parallel to the river alignment. However, the leachate collection system for the Former Active Sanitary Landfill creates a localized cone of depression that extends across the eastern half of the Site and includes the water table underlying Area 1.

Vertical hydraulic gradients were calculated using piezometer clusters. The vertical hydraulic gradients for the shallow alluvium to intermediate or deep alluvium and for deep alluvium to shallow bedrock are very small and vary from slightly downward to slightly upward.

II. OBJECTIVE AND SCOPE

The EPA is requesting assistance from the USGS to conduct technical support of the supplemental PRP-lead investigations including assisting in scoping investigations, reviewing data, and determining background levels of uranium, thorium and radium in groundwater at and surrounding the West Lake Landfill. The technical support may consist of performance of specific tasks which USEPA contractors have neither the expertise or cannot provide at reasonable cost to EPA.

This work assignment includes technical review of documents to provide expert advice on topics such as hydrogeology, geochemistry, water quality, solute transport, or groundwater modeling of which USGS has known expertise.

III. WORK ASSIGNMENT TASKS

The USGS shall furnish personnel and services required to provide assistance in reviewing historical data that has been collected by PRPs. This review will assist the EPA in determining data gaps essential to determining background radionuclide concentrations in groundwater at and around the site, identifying the appropriate methodologies for

addressing data gaps, reviewing work plans generated for performance of the methodologies, and evaluating the data resulting from field activities. Additionally, personnel shall be provided to participate and support the EPA in updating the community of efforts at public events. Finally, USGS may provide radiological analytical support for split samples for uranium, thorium and radium isotopes that EPA may collect during future groundwater sampling events, through USGS' contract laboratories, if it can be demonstrated that the analytical capabilities of the contract laboratory (ies) are equivalent to those being used by the responsible parties for their radiological analyses.

Tasks

1. Project Planning and Support
2. Community Relations
3. Field Investigations
4. Sample Analysis
5. Analytical Support and Data Validation
6. Data Evaluation
7. Assessment of Risks
8. Treatability Study/Pilot Testing
9. Remedial Investigation Report
10. Remedial Alternatives Screening
11. Remedial Alternatives Evaluation
12. FS Report and RI/FS Report
13. Post RA Support
14. Negotiation Support
15. Administrative Record
16. Close Out

TASK 1 PROJECT PLANNING AND SUPPORT

This task includes work efforts related to project initiation, management, and support. Activities required under this task include the following, as applicable:

1.1 The USGS shall participate in a scoping meeting with EPA to discuss the work assignment.

1.2 The USGS shall prepare a work plan of support activities.

1.3 Based on EPA's review of the work plan, the USGS may be called upon to participate in negotiations with EPA on the work plan and to revise the work plan as a result of these negotiations or comments made regarding the work plan.

1.4 The USGS shall prepare, if needed, a Field Sampling Plan (FSP) that describes the number, type, and locations of samples, the type of analyses required, and the method that will be used to collect them.

1.5 The USGS shall prepare a site-specific Quality Assurance Project Plan (QAPP) in accordance with EPA QA/R-5. The plan shall describe the data quality objectives and the measures necessary to achieve them.

1.6 The USGS shall perform site-specific project management including:

- Establishment and maintenance of necessary work assignment files
- Perform contract administration functions associated with this work assignment
- Provide quarterly reporting and invoices
- Monitor costs and performance
- Coordinate staffing and other support activities to perform the work assignment tasks in accordance with the Statement of Work (SOW) including Team subcontractors and other subcontractors
- Attend necessary work assignment meetings

1.7 The USGS shall accommodate any external audit or review mechanism that EPA may require.

TASK 2 COMMUNITY RELATIONS

USGS staff will attend and participate in technical meetings and community meetings, as requested by EPA, to help explain USGS interpretations of site data.

TASK 3 FIELD ACTIVITIES

NA

TASK 4 SAMPLE ANALYSES

NA

TASK 5 ANALYTICAL SUPPORT AND DATA VALIDATION

USGS may provide radiological analytical support for groundwater split samples for uranium, thorium and radium isotopes that EPA may collect during future groundwater sampling events, through USGS' contract laboratories, if it can be demonstrated that the analytical capabilities of the contract laboratory (ies) are equivalent to those being used by the responsible parties for their radiological analyses. Previously, the PRP used Eberline Services' Oak Ridge, TN laboratory for their radiological analyses. EPA's split samples cannot be analyzed at the same lab that is analyzing the PRPs' samples. EPA may collect up to ten (10) split samples during each quarterly groundwater sampling event performed by the responsible parties in 2013. Analytical methods include Ra-226 by EPA method 903.0MOD (alpha spec), Ra-228 by 904.0MOD, Th by DOE EML TH-01, and U by DOE EML U-02. USGS will not perform fieldwork or data validation for the groundwater split sampling or analyses.

TASK 6 DATA EVALUATION

This task includes work efforts related to the evaluation of analytical and field data. The data is to be in a form compatible with EPA's computer systems so that it can be entered into a Region 7 database. Activities required under this task include the following:

6.1 The USGS shall provide technical expertise pertaining to USGS collected and interpreted data (if any) and reviews of hydrologic and geochemical data collected and published by other agencies or companies. Areas of evaluation are expected to include hydrogeology, geochemistry (including background levels), water quality, solute transport, and/or groundwater modeling.

6.2 The USGS shall provide their evaluation of the data to EPA as a USGS letter-type administrative report or letter.

TASK 7 ASSESSMENT OF RISKS

NA

TASK 8 TREATABILITY STUDY/PILOT TESTING

NA

TASK 9 REMEDIAL INVESTIGATION REPORT

NA

TASK 10 REMEDIAL ALTERNATIVE SCREENING

NA

TASK 11 REMEDIAL ALTERNATIVE EVALUATIONS

NA

TASK 12 FS REPORT AND RI/FS REPORT

The USGS shall provide technical assistance in the review and evaluation of the PRP's Supplemental Feasibility Study reports and a ROD Amendment, if needed.

TASK 13 POST REMEDIAL ACTION SUPPORT

NA

TASK 14 NEGOTIATION SUPPORT

NA

TASK 15 ADMINISTRATIVE RECORDS

NA

TASK 16 WORK ASSIGNMENT CLOSE OUT

This task includes efforts related to work assignment close out. Activities required under this task include the following:

16.1 Upon notification by EPA, the USGS shall begin all internal procedures necessary to close out the work assignment including any file duplication, distribution, storage, or archiving per the contract requirements.

16.2 The USGS shall return documents identified to EPA or other document repositories as directed.

IV. WORK ASSIGNMENT PERIOD OF PERFORMANCE

March 25, 2013 to December 30, 2015

V. SCHEDULE OF DELIVERABLES/MILESTONES

1.6	Quarterly Reports/Invoices	Throughout period
5	Analytical Data Packages	As requested (up to 3 events)
6.1	Data Evaluation	Throughout period
12	Data Evaluation	Throughout period

VI. PEFORMANCE CRITERIA

The USGS's deliverables will be inspected by the government for acceptability. Unacceptable deliverables will be returned to the USGS with comments and directions for necessary corrections or rework which may be applicable.

VII. ACCEPTANCE CRITERIA

The following are the acceptance criteria for the deliverables under this work assignment.

TASK	DELIVERABLE/SERVICE	CRITERIA
1.6	Quarterly Reports/Invoices	Narrative of specific task and subtask activities sufficient enough for work assignment manager to evaluate the work assignment progress.
5	Analytical Data Package	In accordance with pre-existing EPA QAPP.
6.1	Data Evaluation	Timely, complete, and accurate review and evaluation of data results and conclusions.
12	Data Evaluation	Timely, complete, and accurate review and evaluation of data results and conclusions.

VIII. EPA CONTACTS

Project Manager	Dan Gravatt	913-551-7324
Project Officer	Marie Rabenau	913-551-7968

United States Environmental Protection Agency
Washington, DC 20460

Interagency Agreement/ Amendment

Part 1 - General Information

1. EPA IA Identification Number	2. Funding Location by Region
DW-14-92380501 - 0	EPA R7
3. Other Agency IA ID Number (if known)	**4. Awarding Office**
	IASSC East
5. Type of Action	**6. IA Specialist:**
New	Lakeyshia Hairston 202-564-5322 hairston.lakeyshia@epa.gov

7. Name and Address of EPA Organization	8. Name and Address of Other Agency
US Environmental Protection Agency IASSC East 1200 Pennsylvania Avenue, NW Mail code 3903R Washington, DC 20460	Department of the Interior USGS / 1400 Independence Road Rolla, MO 65401

9. DUNS: 029128894	10. BETC: DISB	11. DUNS: 137774548	12. BETC: COLL

13. Project Title and Description
West Lake Landfill OU1 Superfund Site

Under this IA the USGS will be tasked to perform technical assistance and analytical services for EPA groundwater split samples for radium, uranium and thorium for supplemental feasibility studies.

14. EPA Project Officer (Name, Address, Telephone Number)	15. Other Agency Project Officer (Name, Address, Telephone)
Marie Rabenau 11201 Renner Boulevard (SUPR/IO) Lenexa, KS 66219 913-551-7968 E-Mail: Rabenau.Marie@epamail.epa.gov FAX: 913-551-9968	John Schumacher USGS / 1400 Independence Road Rolla, MO 65401 573-308-3678 E-Mail: jschu@usgs.gov FAX: 573-308-3645
16. Project Period: 03/25/2013 to 12/30/2015	17. Budget Period: 03/25/2013 to 12/30/2015

18. Scope of Work (See Attachment)
See attached Scope of Work

19. Employer/Tax ID No. 520852695	20. CAGE No: 347A4	21. ALC: 68-01-0727

22. Statutory Authority for Transfer of Funds and Interagency Agreement	23. Other Agency Type
CERCLA: Secs. 105(a)(4) & 115 and Executive Order 12580	Federal Agency

24. Revise Reimbursable Funds and Direct Fund Cites (only complete if applicable)

	Previous Funding	This Action	Amended Total
Revise Reimbursable (in-house)		0	0
Direct Fund Cite (contractor)		0	0
Total			0

Funds	Previous Amount	Amount This Action	Total Amount
25. EPA Amount		$50,000	$50,000
26. EPA In-Kind Amount			$0
27. Other Agency Amount		$0	$0
28. Other Agency In-Kind Amount			$0
29. Total Project Cost		$50,000	$50,000

30. Fiscal Information

Treas. Symbol	DCN	FY	Appropriation	Budget Org	PRC	Object Class	Site/Project	Cost Org	Ob/De-Ob Amt
68X8145	137AW93070	13	T	7AW0P	303DD2	2506	0714BE01	C001	50,000
									50,000

Part II - Approved Budget

EPA IAG Identification Number: DW-14-92380501 - 0

31. Budget Categories	Itemization of All Previous Actions	Itemization of This Action	In-Kind Itemization of This Action	Itemization of Total Project Cost to Date
(a) Personnel		$19,400		$19,400
(b) Fringe Benefits				$0
(c) Travel		$1,523		$1,523
(d) Equipment				$0
(e) Supplies		$4,934		$4,934
(f) Procurement / Assistance				$0
(g) Construction				$0
(h) Other		$4,184		$4,184
(i) Total Direct Charges	$0	$30,041	$0	$30,041
(j) Indirect Costs:	$0	$19,959		$19,959
Charged - Amount Rate: % Base: $ Not Charged: Funds-Out: Not charged by Other Agency Estimate by other Agency Amount $				
(k) Total (EPA Share %) (Other Agency Share %)	$0	$50,000	$0	$50,000

32. How was the IDC Base calculated? 50,000 x .399183 = 19,959.15 rounded to 19,959

33. Is equipment authorized to be furnished by EPA or leased, purchased, or rented with EPA funds? ☐ Yes ☒ No
(Identify all equipment costing $1,000 or more)

34. Are any of these funds being used on Procure/Assistance agreements? ☐ Yes ☒ No

Type of Procure/Assistance Agreement

Contractor/Recipient Name (if known)	Total Procure/Assistance Amount Under This Project	Percent Funded by EPA (if known)
	Total $ 0.00	

Part III - Funding Methods and Billing Instructions

35. **(Note: EPA Agency Location Code (ALC) - 68010727)**

☒ Disbursement Agreement — Request for repayment of actual costs must be itemized on SF 1080 and submitted to the Financial Management Office, Cincinnati, OH 45268-7002:

☒ Repayment — ☐ Monthly ☒ Quarterly ☐ Upon Completion of Work

☐ Advance — Only available for use by Federal agencies on working capital fund or with appropriate justification of need for this type of payment method. Unexpended funds at completion of work will be returned to EPA. Quarterly cost reports will be forwarded to the Financial Management Center, EPA, Cincinnati, OH 45268-7002.

☐ Allocation Transfer-Out — Used to transfer obligational authority or transfer of function between Federal agencies. Must receive prior approval by the Office of Comptroller, Budget Division, Budget Formulation and Control Branch, EPA Hdqtrs Forward appropriate reports to the Financial Reports and Analysis Branch, Financial Management Division, PM-226F, EPA, Washington, DC 20460.

36. ☐ Reimbursement Agreement ☐ Repayment ☐ Advance
☐ Allocation Transfer-In

Other Agency's Billing Address (Include ALC or Station Symbol Number)	Other Agency's Billing Instructions and Frequency

Part IV - Acceptance Conditions	EPA Identification Number DW-14-92380501 - 0
37. Terms and Conditions, when included, are located at the end of the 1610-1, or as an attachment.	

Part V - Offer and Acceptance

Note: A) For Fund-out actions, the agreement/amendment must be signed by the other agency official in duplicate and one original returned to the Grants and IA Management Division for Headquarters agreements or to the appropriate EPA Regional IA administration office within 3 calendar weeks after receipt or within any extension of time that may be granted by EPA. The agreement/amendment must be forwarded to the address cited in item 29 after acceptance signature

Failure to return the properly executed document within the prescribed time may result in the withdrawal of offer by EPA. Any change to the agreement/amendment by the other agency after the document is signed by the EPA Award Official, which the Award Official determines to materially alter the agreement/amendment, shall void the agreement/amendment

B) For Funds-In actions, the other agency will initiate the action and forward two original agreements/amendments to the appropriate EPA program office for signature. The agreements/amendments will then be forwarded to the appropriate EPA IA administration office for signature on behalf of the EPA. EPA will return one original copy after acceptance returned to the other agency after acceptance

EPA IA Administration Office (for administrative assistance)	EPA Program Office (for technical assistance)
38. Organization/Address U S Environmental Protection Agency IASSC East 1200 Pennsylvania Avenue, NW Mail code 3803R Washington, DC 20460	39 Organization/Address US Environmental Protection Agency R7 - Region 7 11201 Renner Boulevard Lenexa, KS 66219

Award Official on Behalf of the Environment Protection Agency

40. Digital signature applied by EPA Award Official | FOR Frank N Roth - Chief Fellowship IA & SEE Branch Michelle Messick - AO delegate	Date 04/19/2013

Authorizing Official on Behalf of the Other Agency

41. Signature	Typed Name and Title	Date
Michael Silfer	Michael Silfer, Director	4/22/13